

Serial No.: 10/563,660  
Docket No.: 09792909-6521  
Reply to the Office Action of May 11, 2010

## REMARKS

### **A. Introduction**

Claims 1-16 were pending and under consideration in the application.

In the Office Action of May 11, 2010, claims 1-16 were rejected. With this amendment, no claims.

### **B. Rejection under 35 USC §103**

Claims 1-10 were rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,612,691 to Koitabashi in view of U.S. Patent No. 5,591,514 to Hirose with reference to the IEEE and ASTM Dictionary definition of room temperature.

Claims 11-16 were rejected under 35 U.S.C. §103 as unpatentable over Koitabashi in view of Hirose and in further view of U.S. Pat. Pub. No. 2002/0097290 to Koitabashi and U.S. Pat. No. 6,174,056 to Sakaki.

Applicant traverses these rejections for at least the following reasons.

In relevant part, each of the independent claims 1 and 4 recite discharging ink having a surface tension of 25 to 45 mN/m at 23°C.

This is clearly unlike Koitabashi which is silent regarding an ink with a surface tension of 25 to 45 mN/m at 23°C. Instead, Koitabashi merely discloses an ink with a surface tension of between 35-40 mN/m without disclosing the temperature of the ink. See Koitabashi, Col. 10 1-17. As one having ordinary skill in the art would recognize the penetration of ink into a surface is directly related to the surface tension of the ink and the surface tension of ink changes based on the temperature of the ink. Therefore, an ink with a specific surface tension at one temperature will have a different surface temperature at another temperature. Accordingly, Koitabashi cannot be fairly viewed as disclosing an ink with a surface tension of 25 to 45 mN/m at 23°C because Koitabashi does not disclose the temperature of the ink that results in the surface tension being 35-40 mN/m. Therefore, Koitabashi fails to disclose the claimed ink which has a surface

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tension of 25 to 45 mN/m at 23°C .

Sakaki and Hirose fail to cure this defect. Hirose is limited to an ink having a surface tension of 45 to 50 dyne/cm at 25 degrees Celsius. See, Hirose Col. 5, l. 60-64. Sakaki, similarly, discloses ink surface tensions of 25-40 dyne/cm at 25 degrees Celsius. See, Sakaki, Col. 6, l. 1-2.

As the Applicants specification discloses, by discharging ink having a surface tension of 25 to 45 mN/m at 23°C, the amount of penetration of the ink is increased which results in an increase in the image quality of the image recorded. See, U.S. Pat. Pub. No. 2006/0158495, Paras. [0049]-[0066].

Accordingly, independent claims 1 and 4 are patentable over the references and withdrawal of these rejections and allowance of these claims are earnestly solicited. Likewise, claims depending from independent claims 1 or 4 include all of the limitations of these claims, and are also allowable over these references for at least the same reasons discussed above with respect to claims 1 and 4.

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**C. Conclusion**

It is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, there being no other objections or rejections, this application is in condition for allowance, and a notice to this effect is earnestly solicited.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,  
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